RESEARCH & DEVELOPMENT BRANCH

MONTHLY REPORT - DECEMBER 1964

INTRODUCTION

1. One of our "parallel development" projects paid off this month; [redacted] 12-volt 20-watt HF transmitter (the RT-66) was completed ahead of schedule. A fast one-day Laboratory evaluation showed that the transmitter performs well, in spite of a few variations from [redacted] test data. The significance of this, of course, is that a 12-volt 20-watt transmitter can be built without a DC-DC converter—and we had hoped that advances in transistor technology would come along fast enough for application to the RS-100. The day after the Laboratory's preliminary evaluation was run, we brought [redacted] engineers in and requested a proposal from them to put a 12-volt transmitter in the RS-100 which we loaned them—[redacted] will also remove the DC-DC converter, remove excess heat sinks and cooling fins, and dress up the front panel. A 60-day program is planned, which will allow time to evaluate the results and incorporate the new transmitter in fourth-quarter 1965 RS-100 procurement. Assuming success, all this will be well-worth the extra effort—since we will wind up by cutting our battery drain about in half, eliminating DC-DC converter hash, and eliminating converter components which will improve reliability and decrease weight. [redacted] has been asked to concurrently design an AM-modulator for inclusion in the RS-100, to be compatible with existing CW power ratings; this option can be included in production if it proves feasible and is considered worthwhile (personal opinion: I think it useful in a tactical set. It could be disabled before issue, or the modulator module removed, in instances where the modulation capability is to be denied the operator).

25X1A5a1

25X1A5a1

25X1A5a1

25X1A5a1

[redacted]

25X1C1a2

3. Despite a lack of snow outside, Alcott Hall had a white Christmas inside, as we wrestled with BPAM R&D report forms and the like.

[redacted]

25X1A9a

[redacted]

RESEARCH AND DEVELOPMENT LABORATORY

December 1964

I. GENERAL

1. Visitors to the Laboratory during this reporting period included a group of five representatives of the National Security Agency composed primarily of research and development personnel. These gentlemen were given a comprehensive tour of the Laboratory followed by a discussion of mutual design problems.

2. The value of equipment fabricated at the R&D Laboratory and delivered to the warehouse for stock this month was $74,000. It is worthy of note that this brings the total value of Laboratory-fabricated equipment for the first half of the current fiscal year to approximately $290,000.

II. DESIGN

1. Six new design projects were initiated during December.

[redacted]

25X1C1a2

2. Another new design project is for the development of a control unit designated the CU-17. This unit is similar to the one fabricated on a crash project during October in support of an operational [redacted] equipment. The purpose of the CU-17 is to improve [redacted] system reliability. The CU-17 will furnish automatic changeover from AC to emergency DC power in case of failure along with various alarms, indicators, and automatic controls, all intended to assure that an [redacted] message is not missed as a result of equipment or power failure.

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25X1A

25X1A

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V. ADMINISTRATIVE

TDY

25X1A9a [redacted] 25X1A [redacted] 1 - 9 December

TRANSFERS

N. A.

PCS

N. A.

EOD

N. A.

RESIGNATIONS

N. A.

EFFECTIVE PROMOTIONS

25X1A9a [redacted]

GS-05 to GS-06	6 December
GSS-07 to GSS-08	6 December
GS-04 to GS-05	20 December
GS-07 to GS-08	20 December

TRAINING

N. A.

OTHER

Co-op students returned to duty:

25X1A9a [redacted]

	31 December
	31 December
	14 December

Co-op students returned to school:

25X1A9a [redacted]

	18 December
	18 December
	22 December
	18 December
	18 December

[redacted]